

STANDARDIZED  
SCOPE OF SERVICES  
AND  
WORK HOUR ESTIMATE FORMS  
FOR CONSULTANT SERVICES

**Printing Instructions**

This scoping workbook is formatted to print every needed tab at once rather than printing each tab individually. You may wish to print these instructions first before continuing.

Once all data has been entered and the package is ready to be printed or published to a PDF file, follow these steps.

**For Cost Plus Contracts**

1. Click Form 1.1.
2. While holding the SHIFT key, click on the Form 1.4 tab then the Cost Plus tab.
3. Release the SHIFT key and print as usual.

**For Lump Sum Contracts**

1. Click Form 1.1.
2. While holding the Shift key, click on the Form 1.4 tab.
3. Press down the CTRL key and select the Lump Sum tab.
4. Release everything and then print as usual.

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WORK HOUR ESTIMATE FORMS  
FOR CONSULTANT SERVICES

**Revision Notes**

**Revisions Effective November 2013**

Form 1.3 Work Hour Estimate - Task Names revised to match the Standard Task Descriptions as provided in Division II of the Standard Provisions for Consultant Contracts, revised 5/2013 as further amended by the Special Provisions for Consultant Contracts, revised August 2013.

**Revisions Effective May 2013**

Form 1.3 Work Hour Estimate - Task Names revised to match the Task Names as provided in Division II of the Standard Provisions for Consultant Contracts, revised 5/2013.

**Revisions Effective March 2011**

Form 1.1 Project Description was updated to reflect pavement design and traffic signal boring task requirements in the Project Definition Narrative and in the Traffic Work Item.

Form 1.2 Environmental Scope was updated to reflect the replacement of PGP permits with MGP permits, review requirements for Section 106/Chapter 91 and Chapter 254 permits, NPDES requirements, and MESA coordination responsibilities.

Form 1.3 Work Hour Estimate. Tasks realigned with their Task Descriptions as provided in the STANDARDIZED SCOPE OF SERVICES GUIDANCE FOR PREPARING WORKHOUR ESTIMATE FORMS FOR CONSULTANT SERVICES, revised 3/2011.

**MassDOT - HIGHWAY DIVISION**

**SCOPING WORKBOOK Form1.1 Project Definition**

City/Town				Contract No.:	<b>0</b>
Location:				Assignment No.:	
Revisions Effective November 2013		BIN:		ProjInfo No.:	
MassDOT Section		Est. Constr. Cost:		PARS No.:	
Consultant:		Project Manager:		District:	
Date:	Rev Date:	Rev Date:	Rev Date:	Rev Date:	Rev Date:
<b><u>PROJECT DEFINITION NARRATIVE</u></b> <b>PROJECT TYPE CODE: ____ PROJECT TYPE: ____</b>					
<p><i>The project scope shall be developed in accordance with Chapter 2 of the Project Development and Design Guide. This will ensure that the proposed scope of work is complete and appropriate.</i></p> <p>Services include design for highway related projects such as construction or reconstruction; design for bridge related projects such as a new bridge, bridge replacement, or bridge reconstruction/rehabilitation of Bridge #...carrying ... over ....</p> <p>Services include design for roadway construction/reconstruction from Sta. ... to Sta. .... The existing roadway has a curb to curb width of ... feet with sidewalks/no sidewalks. The proposed roadway curb to curb width is ... feet with sidewalks/no sidewalks.</p> <p>The existing bridge is a ... -foot long ... structure.</p> <p>The existing bridge, constructed in 19.., and reconstructed in 19.. has a curb to curb width of ... feet with sidewalks/no sidewalks.</p> <p>The proposed bridge curb to curb width is ... feet with sidewalks/no sidewalks.</p> <p>Transition approach roadways into new bridge.</p> <p>Provide a Functional Design Report (draft copy prior to the Public Hearing).</p> <p>Pavement cores and soil samples for Pavement Design may be required during design. This is the responsibility of the Design Consultant and may be done as a direct expense.</p> <p>Borings for traffic signals may be required and must be performed during design. This is the responsibility of the Design Consultant and may be done as a direct expense.</p> <p>Bridge to be constructed within/outside existing right of way.</p> <p>Maintain vehicular/pedestrian traffic during construction by means of stage construction/detour .</p> <p>A Traffic Management Plan (TMP) is required.</p> <p>An hydraulic study shall be done by MassDOT or the Consultant to verify the bridge opening for bridges over water.</p> <p>Sampling and analyses of sediment for a Water Quality Certificate may be required. This is the responsibility of the Design Consultant and may be done as a direct expense.</p> <p>Refer to <u>Exhibit C - Bridge Scope of Consultant Services</u>, enclosed herein, dated 00/00/00.</p>					
<b>WORK ITEM</b>		<b>DESCRIPTION</b>		<b>STATUS</b>	
Functional Design Report		Describes existing conditions, evaluates alternatives, and recommends proposed geometrics.			
Design Exception		Describes reasons for requesting a design exception and forms the basis for a Design Exception Report.			
Typical Cross Section		a) Mainline			
		b) Side Streets			
Design Speed		a) Mainline			
		b) Side Streets			
Project Lengths					
		a) Mainline			
		b) Ramps			
		b) Side Streets			

**MassDOT - HIGHWAY DIVISION**

**SCOPING WORKBOOK Form1.1 Project Definition**

City/Town		Contract No.:	<b>0</b>
Location:		Assignment No.:	
Revisions Effective November 2013	BIN:	ProjInfo No.:	
<b>WORK ITEM</b>	<b>DESCRIPTION</b>	<b>STATUS</b>	
Survey			
	a) Data Collection		
	b) Base Plan Preparation		
Geotechnical			
	a) Boring Location Plan		
	b) Take Borings		
	c) Test Pits		
	d) Geotechnical Report		
	e) Boring Logs and Plans		
Drainage			
	(Open/Closed)		
Hydraulics			
	Hydraulics Report		
Wetlands			
	a) Delineation		
	b) Flagging Survey		
Landscaping			
Traffic			
	a) Traffic Counts		
	b) TMP/Detour		
	c) Safety Analysis		
	d) Signals (borings may be required)		
	e) Signs/Supports		
	f) Markings		
	g) TCA		
	h) Lights		
ROW			
	a) Takings		
	b) Easements		
	c) Demolitions		
	d) Relocations		
Utilities			
	a) Electric		
	b) Telephone		
	c) Gas		
	d) Water		
	e) Sewer		
	f) Cable		
	g) Fire Alarm		
	h) MBTA/RR		
	i) Street Lighting		

MassDOT - HIGHWAY DIVISION

SCOPING WORKBOOK Form1.1 Project Definition

City/Town			Contract No.:	0
Location:			Assignment No.:	
Revisions Effective November 2013		BIN:	ProjInfo No.:	
WORK ITEM		DESCRIPTION		STATUS
Bridge	Appr. Width Rail to Rail	Curb to Curb Width	Span Configuration	
Exist:				
Proposed:		Refer to detailed Bridge Scope		
Public Hearing				
			By Consultant	
Construction Phase				
	a) Pre-Construction		By Consultant	
	b) Advice		By Consultant	
	c) Shop Drawings		By Consultant	
	d) Signal Inspection			
	e) Permit Plan			
	f) Bridge Rating Report ("As Built" structure)		By Consultant	

**MassDOT - HIGHWAY DIVISION**

**SCOPING WORKBOOK Form 1.2 Environmental Scope**

City/Town		<b>0</b>	Project Type
Location:		<b>0</b>	
Revisions Effective November 2		<b>0</b>	
MassDOT Section		<b>0</b>	
Consultant:	<b>0</b>		
<b>FILING PERMIT</b>	<b>REGULATORY THRESHOLD</b>		<b>STATUS</b>
<b>NEPA</b>	<b>FHWA</b>		
<b>EIS</b>	Thresholds determined by Categorical Exclusion Checklist		
<b>EA</b>			
<b>CE</b>			0
	<b>ACOE</b>		
<b>Individual ACOE Permit</b>	More than 1 acre of impacts to U.S. waters. Maintenance dredging of more than 25,000 c.y. or any amount in a special aquatic site such as salt marshes, mudflats, pools and riffles, and vegetated shallows.		
<b>MGP II</b>	More than 5,000 s.f. but under 1 acre of cumulative impacts to U.S. waters. Maintenance dredging of more than 1,000 c.y. but less than 25,000 c.y. not in a special aquatic site. Work within the confines of a wild and scenic river. Temporary fill and excavation up to 1 acre in Special Aquatic Sites including salt marsh. Work in essential fish habitat.		
<b>MGP I</b>	Under 5,000 s.f. of cumulative impacts to U.S. waters. In stream work limited from July 1 till October 1. Maintenance dredging less than 1,000 c.y. not in a Special Aquatic Site. River, stream and brook work and crossings comply with the Stream Crossing Standards (GC21). No impacts to Special Aquatic Sites or Essential Fish Habitat, including vernal pools.  Project does not have the potential for an effect on a historic property within the permit area or any know historic property that may occur outside the permit area.		
<b>CPB</b>	Under 5,000 s.f. of cumulative impacts to U.S. waters. Not crossing a Federally-designated Wild and Scenic River. No work on Corps properties and Corps-controlled flood easements such as the Charles River Natural Valley Storage Area, that would impair the usefulness of a federal project or involve chnages to the federal project's scope, purpose, and/or function. Proposed low chord cannot intersect the 10-year flood elevation. Cannot be identified by the Massachusetts Office of Coastal Zone Management as potentially causing restrictions to tidal flow. No impacts to any federally listed endangered species or their habitat. The project does not have a potential for an effect on a historic property within the permit area unless impacts have been addressed pursuant to the Programmatic Agreement between Federal Highway Administration and the State Historic Presevation Officer or any subsequent Corps of Engineers PA to satisfy the requirements of Section 106 of the National Historic Preservation Act.  Proposed open span waterway width at ground level cannot be less than the existing structure's span. This qualification does not apply if the new span width is at least 1.2 times the geomorphic bank full width of the stream. Proposed bridge span or arch span cannot constrict the flow over a bedrock dominated streambed and result in impassable stream flow velocities. There cannot be a dam or other structural element (other than a bridge abutment or pier) that obstructs the channel within the footprint of the proposed bridge span or arch span. Proposed "bridge" that consists of a culvert cannot be rated as a moderate or severe barrier to aquatic organism passage. A moderate or severe barrier is a structure with a Crossing Rating of less than 3, based on an evaluation using the "MassDOT Stream Crossing Structures Rating Chart."		
	<b>USCG</b>		
	Required for work in commercially navigable (includes historic usage) or tidal waterways where there is a change in the hydraulic opening of the bridge.		
<b>Section 9 CG Permit</b>	<b>FHWA</b>		

MassDOT - HIGHWAY DIVISION

SCOPING WORKBOOK Form 1.2 Environmental Scope

City/Town		0	Project Type
Location:		0	
Revisions Effective November 2		0	
MassDOT Section		0	
Consultant:	0		
FILING PERMIT	REGULATORY THRESHOLD		STATUS
	STURAA approval may be granted to coastal bridge projects with federal funds allocated toward construction where the navigational opening remains unchanged and where vessels 21 feet or greater do not pass under the bridge.		

**MassDOT - HIGHWAY DIVISION**

**SCOPING WORKBOOK Form 1.2 Environmental Scope**

City/Town		<b>0</b>	Project Type	
Location:		<b>0</b>		
Revisions Effective November 2		<b>0</b>		
MassDOT Section		<b>0</b>		
Consultant:	<b>0</b>			
<b>FILING PERMIT</b>	<b>REGULATORY THRESHOLD</b>		<b>STATUS</b>	
	<b>EPA</b>			
<b>NPDES CGP</b>	Designer to include Contract Item 756 to address this work to be done by the Contractor. The National Pollution Discharge and Elimination Systems Program is administered by EPA and requires the filing of an NOI and the preparation of an SWPPP for projects involving construction projects with 1 or more acres of earth disturbance. The NOI is a form which the contractor must complete and file with EPA at least 48 hours prior to the start of construction.			
<b>NPDES MS4 - WQDF</b>	The Water Quality Data Form is a tool used to ensure compliance with Section 303 regulations of the Clean Water Act. The form is comprised of two portions: 25% Design and 75% Design. The 25% Design portion highlights the impairment status of the receiving waterbody and offers recommendations pertaining to BMP upgrades; the 75% Design portion documents the existing and proposed BMPs within the project area which contribute to improved stormwater quality			
	<b>FHWA</b>			
<b>Section 4(f) Evaluation</b>	Section 4(f) Evaluations & Approvals for FHWA projects that necessitate the use of publicly owned land such as a public park, recreation area, or a wildlife and waterfowl refuge or land of an historic site of national, state or local significance.			
	<b>MCZM</b>			
<b>MCZM Concurrence</b>	Work in water within the coastal zone when at least a MGP II or a Coast Guard Permit is required. Also will require concurrence when MEPA thresholds are triggered.			
	<b>EOEA/MEPA UNIT</b>			
<b>EIR</b>	Constructing a new road 2 or more miles in length.			
	Widening an existing road by 1 or more travel lanes for 2 or more miles.			
	New interchange on a completed limited access highway.			
	Requiring a variance from the WPA.			
	Altering 1 or more acres of Salt Marsh or BVW.			
	Altering 10 or more acres of other wetlands.			
	Altering 50 or more acres of land.			
	Creating 10 or more acres of impervious area.			
<b>ENF</b>	Widening 4 feet or more for a half mile or more.			
	Cutting 5 or more mature living public shade trees (not trees within State Highway Layout) 14" or more in diameter @ breast height.			
	Altering bank or terrain 10 ft or more from the edge of pavement for 1/4 mile or more except for the installation of structures such as sidewalks, drainage systems, etc.			
	Work in an ACEC.			
	Altering 5,000 s.f. or more of BVW.			
	Eliminating 300 linear feet of stone wall.			
	Creation of 5 or more acres of impervious area.			
	Direct alteration of 25 or more acres of land.			
	Conversion of land in active agricultural use to non-agricultural use.			
	Conversion of land held for natural resources purposes in accordance with Article 97.			
	Construction of 300 or more new parking spaces at a single location.			
	A Notice of Project Change is required whenever there is a material change (positive or negative) in a project prior to the taking of all agency actions for the project. The MEPA regulations specify the factors which the Secretary may consider in determining whether changes to a project are significant. Proponents should refer to Section 11.10 of the MEPA regulations for greater detail.			
	<b>LOCAL CONSERVATION COMMISSION</b>			
<b>RDA</b>	Required when work/activity will occur within 100 feet from the edge of BVW, LUW, Bank, etc. or sometimes within riverfront area especially 100-200 feet from a perennial stream or river.			
<b>NOI</b>	Under the WPA, required when proposing direct activity in or having an impact on resource areas subject to protection, including BVW, LUW, Bank, RFA, BLSF, ILSF, etc.			



**MassDOT - HIGHWAY DIVISION**

**SCOPING WORKBOOK Form 1.2 Environmental Scope**

City/Town		<b>0</b>	Project Type
Location:		<b>0</b>	
Revisions Effective November 2		<b>0</b>	
MassDOT Section		<b>0</b>	
Consultant:	<b>0</b>		
<b>FILING PERMIT</b>	<b>REGULATORY THRESHOLD</b>		<b>STATUS</b>
	<b>SHPO</b>		
<b>Section 106</b>	All projects using federal funding, liscencing, or approval require review for potential impacts/effects on properties listed in, or eligible for listing in, the National Register of Historic Places. This review is handled by Environmental Services Cultural Resources Unit.		
	<b>MHC</b>		
<b>Chapter 254</b>	All projects undertaken, funded, or approved by a state body require review for potential impacts/effects on properties listed in the State Register of Historic Places. This review is handled by Environmental Services Cultural Resources Unit. (Completed project review under Section 106 will ordinarily fulfill the requirements of compliance with Chapter 254).		
	<b>MASSACHUSETTS DIVISION OF FISHERIES AND WILDLIFE</b>		
<b>MESA</b>	If the project is located within a MNHESP Priority Habitat polygon, Environmental Services Wetlands Unit will coordinate with MNHESP.		
	<b>DEP</b>		
<b>WQC</b>	If under 5,000 s.f. of cumulative impacts, WQC is considered automatic with the issuance of an OOC. More than 5,000 s.f. of cumulative impacts. More than 100 c.y. of dredging. Any impacts associated with Bridge Projects that are exempt from the WPA. Work within an ORW. Any work requiring an Individual ACOE permit.		
<b>WQC SF</b>	Expedited 42 day DEP review and permit issuance on Footprint Bridge projects may be sought provided certain criteria are met and provided DEP agrees to the expedited review.		
<b>CH 91 Permit</b>	Activities requiring a permit include beach nourishment and dredging within jurisdictional areas. Lowering the water level of a Great Pond.		
<b>CH 91 License</b>	Bridge projects subject to the Footprint Bridge Exemption are exempt from CH 91. Maintenance projects are exempt from CH 91. CH 91 applies to all waterways including Great Ponds (10 or more acres in size), the Connecticut River, sections of the Westfield River, non-tidal portions of the Merrimack River, and any non-tidal river or stream on which public funds have been expended for stream clearance, channel improvement, or any form of flood control or prevention work, either upstream or downstream within the river basin, except for any portion of any such river or stream which is not normally navigable during any season by any vessel including a canoe, etc. and work in all filled tidelans except landlocked tidelands and all filled lands lying below the natural high water mark of Great Ponds. Activities requiring a license include any construction, placement, excavation, addition, improvement, replacement, reconstruction, demolition or removal of any fill or structures, not previously authorized.		

**MassDOT - HIGHWAY DIVISION**

**SCOPING WORKBOOK Form 1.3 Work Hour Estimate**

City/Town						Contract No.:				
Location:						Assignment No.:				
Revisions Effective						ProjInfo No.:				
<b><u>SECTION 100</u></b>										
<b><u>PROJECT DEVELOPMENT ENGINEERING</u></b>										
				PIC	PM	SE	Eng	AE	ET	TOTAL
101	Project Concept Preparation (Development of Purpose and Need)									
102	Preliminary Project Area Analysis									
103	Reasonable Alternative(s) Identification									
104	Alternatives Analysis & Report Preparation									
105	Project Design Schedule Development and Monthly Updates									
	SUBTOTAL									
<b><u>SECTION 150</u></b>										
<b><u>ENVIRONMENTAL</u></b>										
				PIC	PM	SE	Eng	AE	ET	TOTAL
151	Early Environmental Coordination Design Submission Checklist									
152	Hist./Arch. - Federal Section Section 106 and State Chapter 254									
153	Reserved									
154	Hazardous Materials Research/Review									
155	Project Development Meetings and Hearings									
156	NEPA/MEPA Determination									
157	NEPA - Categorical Exclusion (CE)									
158	NEPA - Environmental Assessment (EA)									
159	NEPA - Draft Environmental Impact Statement (EIS)									
160	NEPA - Final Environmental Impact Statement (EIS)									
161	NEPA - Supplemental Environmental Impact Statement (EIS)									
162	NEPA - Reevaluation									
163	MEPA - Environmental Notification Form (ENF)									
164	MEPA - Draft Environmental Impact Report (DEIR)									
165	MEPA - Final Environmental Impact Report (FEIR)									
166	MEPA - Notice of Project Change (NOPC)									
167	MEPA - Supplemental Environmental Impact Report (SEIR)									
168	Reserved									
169	Reserved									
170	USACE Section 404 General Permit (PGP)									
171	USACE Individual Section 404 Permit									
172	U.S. Coast Guard Bridge Permit									
173	Programmatic Section 4(f) Evaluation									
174	Draft Individual Section 4(f) Evaluation									
175	Final Individual Section 4(f) Evaluation									
176	Wetland Resource Area Delineation									
177	WPA Abbr. Notice of Resource Area Determination (ANRAD)									
178	WPA Request for Determination of Applicability (RDA)									
179	WPA Notice of Intent (NOI)									
180	WPA Variance									
181	Chapter 91 License/Permit Application									
182	Water Quality Certification									
183	Coastal Zone Management Consistency Review									
184	Wildlife/Rare Species Assessment									
185	Essential Fish Habitat Assessment									
186	Reserved									
187	Impaired Waterbody Assessment and Water Qulaity Data Form									
	SUBTOTAL									

**MassDOT - HIGHWAY DIVISION**

**SCOPING WORKBOOK Form 1.3 Work Hour Estimate**

City/Town						Contract No.:					
Location:						Assignment No.:					
Revisions Effective						ProjInfo No.:					
<b><u>SECTION 200</u></b>											
<b><u>FUNCTIONAL DESIGN REPORT (FDR)</u></b>											
					PIC	PM	SE	Eng	AE	ET	TOTAL
201	Establish Purpose and Need										
202	Public and Agency Outreach										
203	Evaluate Existing Conditions / Context										
204	Prepare Traffic Volumes										
205	Conduct Safety Analysis										
206	Evaluate Signal Warrants										
207	Operational Analysis for Existing Conditions										
208	Establishment of Basic Design Controls and Evaluation Criteria										
209	Development of Alternatives										
210	Operational Analysis for Future Conditions										
211	Preferred Alternative										
212	Complete Streets										
213	GreenDOT										
214	Traffic Management										
215	Construction Cost										
216	Conclusion and Recommendation										
217	Report Preparation										
	SUBTOTAL										
<b><u>SECTION 220</u></b>											
<b><u>DESIGN EXCEPTION REPORT</u></b>											
					PIC	PM	SE	Eng	AE	ET	TOTAL
221	Evaluate 13 Controlling Criteria										
222	Perform Incremental Evaluation										
223	Prepare Narrative/Report										
	SUBTOTAL										
<b><u>SECTION 230</u></b>											
<b><u>INTERCHANGE JUSTIFICATION / MODIFICATION REPORT (IJR / IMR)</u></b>											
					PIC	PM	SE	Eng	AE	ET	TOTAL
231	Prepare an IJR/IMR										
	SUBTOTAL										
<b><u>SECTION 300</u></b>											
<b><u>25% HIGHWAY DESIGN SUBMISSION</u></b>											
					PIC	PM	SE	Eng	AE	ET	TOTAL
301	Project Initiation and Data Compilation										
302	Utility Coordination										
303	Survey Coordination and Controls										
304	Base Plans, Profiles and Typical Sections										
305	Field Reconnaissance										
306	Plot Existing Layout Lines										
307	Meetings and Liaison										
308	Determine Roadway Cross Section										
309	Preliminary Horizontal Geometry										
310	Preliminary Vertical Geometry										
311	Cross Section Studies										
312	Prepare Cross Sections										
313	Plot Proposed Layout and Easements										

**MassDOT - HIGHWAY DIVISION**

**SCOPING WORKBOOK Form 1.3 Work Hour Estimate**

City/Town						Contract No.:				
Location:						Assignment No.:				
Revisions Effective						ProjInfo No.:				
<b>SECTION 300 (Cont'd)</b>										
<b>25% HIGHWAY DESIGN SUBMISSION</b>										
				PIC	PM	SE	Eng	AE	ET	TOTAL
314	Pavement Design									
315	Typical Sections									
316	Construction Details									
317	Hydrological Studies and Hydraulics Report									
318	Preliminary Drainage and Utility Studies									
319	Lane Configurations									
320	Traffic Signals									
321	Signs and Pavement Markings									
322	Traffic Management									
323	Reserved									
324	Constructability Review									
325	Quality Control (QC) Review									
326	Preliminary Construction Estimate									
327	Submission Checklists									
328	Modifications and Revisions									
329	Value Engineering (VE)									
330	Construction Contract Time Determination									
331	Incentives/Disincentives									
	SUBTOTAL									
<b>SECTION 350</b>										
<b>DESIGN PUBLIC HEARING</b>										
				PIC	PM	SE	Eng	AE	ET	TOTAL
352	Hearing Preparation									
353	Design Public Hearing									
	SUBTOTAL									
<b>SECTION 400</b>										
<b>75% HIGHWAY DESIGN SUBMISSION</b>										
				PIC	PM	SE	Eng	AE	ET	TOTAL
401	Response to 25% Comments									
402	Field Reconnaissance									
403	Meetings, Liaison and Coordination									
404	Utility Coordination									
405	Final Horizontal Design Geometrics									
406	Final Vertical Design Geometrics									
407	Pavement Design									
408	Typical Cross Sections									
409	Plot Cross Section									
410	Plot Proposed Layout and Easements									
411	Construction Plans									
412	Grading and Tie Plans									
413	Drainage and Water Supply Details									
414	Traffic Signs									
415	Guide Sign Design & Overhead Directional (OD) Elevations									
416	Traffic Signals and Plan Preparation									
417	Pavement Markings and Plan Preparation									
418	Traffic Management									
419	Highway Lighting Plans and Details									
420	Landscaping and Plan Preparation									

**MassDOT - HIGHWAY DIVISION**

**SCOPING WORKBOOK Form 1.3 Work Hour Estimate**

City/Town						Contract No.:				
Location:						Assignment No.:				
Revisions Effective						ProjInfo No.:				
<b><u>SECTION 400 (Cont'd)</u></b>										
<b><u>75% HIGHWAY DESIGN SUBMISSION</u></b>										
				PIC	PM	SE	Eng	AE	ET	TOTAL
421	Erosion Control									
422	Miscellaneous Contract Plans									
423	Quantity & Cost Estimate (Weighted Average Bid Application)									
424	Special Provisions									
425	Constructability and Quality Control (QC) Review									
426	Submission Checklist									
427	Bottom Up Estimate and Reconciliation (if required)									
428	Construction Contract Time Determination									
429	Incentives/Disincentives with Road User Calculation									
	SUBTOTAL									
<b><u>SECTION 450</u></b>										
<b><u>100% HIGHWAY DESIGN SUBMISSION</u></b>										
				PIC	PM	SE	Eng	AE	ET	TOTAL
451	Respond to 75% Comments									
452	Finalize Plans									
453	Finalize Special Provisions									
454	Finalize Quantity and Cost Estimate (W.A.B.A. & Calculation Book)									
455	Quality Control (QC) Review									
456	Submission Checklist									
457	Bottom Up Estimate and Reconciliation (if required)									
458	Construction Contract Time Determination									
459	Incentives/Disincentives									
	SUBTOTAL									
<b><u>SECTION 500</u></b>										
<b><u>RIGHT OF WAY</u></b>										
				PIC	PM	SE	Eng	AE	ET	TOTAL
501	Preliminary Right of Way Plans									
502	Layout Plans and Order of Taking									
503	Written Instrument									
504	Final Right of Way Plans									
	SUBTOTAL									
<b><u>SECTION 600</u></b>										
<b><u>GEOTECHNICAL DESIGN</u></b>										
				PIC	PM	SE	Eng	AE	ET	TOTAL
601	Research Available Subsurface Data									
602	Field Reconnaissance									
603	Subsurface Investigation Plan									
604	Subsurface Investigation Inspection									
605	Office Studies, Analysis and Testing									
606	Geotechnical Report									
607	Meetings, Reviews and Liaison									
608	Final Plans, Specifications and Estimates									
	SUBTOTAL									

**MassDOT - HIGHWAY DIVISION**

**SCOPING WORKBOOK Form 1.3 Work Hour Estimate**

City/Town					Contract No.:			
Location:					Assignment No.:			
Revisions Effective					ProjInfo No.:			
<b><u>SECTION 700</u></b>								
<b><u>PROJECT DEVELOPMENT - STRUCTURAL</u></b>								
		PIC	PM	SE	Eng	AE	ET	TOTAL
701	Field Investigation							
702	Determine Bridge Configurations							
703	Preliminary Structural Analysis							
704	Comparative Design and Cost Analyses							
705	Preliminary Structures Report Preparation							
706	Bridge Type Selection Worksheet Preparation							
707	Meetings and Liaison							
708	Hydraulics Study and Report (Bridges over Water)							
	SUBTOTAL							
<b><u>SECTION 710</u></b>								
<b><u>SKETCH PLANS</u></b>								
		PIC	PM	SE	Eng	AE	ET	TOTAL
711	Establish Boring Locations							
712	Reserved							
713	Sketch Plan Development							
714	Meetings, Coordination and Liaison							
715	Constructability Review							
716	Submission Checklist							
	SUBTOTAL							
<b><u>SECTION 750</u></b>								
<b><u>FINAL BRIDGE DESIGN</u></b>								
		PIC	PM	SE	Eng	AE	ET	TOTAL
751	Structural Design - Superstructure							
752	Structural Design - Substructure							
753	Bridge Layout Geometrics							
754	Contract Drawings							
755	First Review Submission							
756	Quantity Cost Estimates							
757	Special Provisions							
758	Second Review Submission							
759	FHWA Reviews							
760	Meetings and Liaison							
761	Constructability and Quality Control (QC) Review							
762	Submission Check List							
	SUBTOTAL							
<b><u>SECTION 800</u></b>								
<b><u>PS&amp;E SUBMISSION</u></b>								
		PIC	PM	SE	Eng	AE	ET	TOTAL
801	Respond to 100% Comments							
802	Finalize Plans, Specifications and Estimate							
803	Prepare Detail Sheets							
804	Combine Highway and Bridge							
805	Quality Control (QC) Review							
806	Finalize Bottom Up Estimate and Estimate Reconciliation (if required)							
807	Finalize Construction Contract Time Determination							
808	Finalize Incentives/Disincentives							
	SUBTOTAL							

MassDOT - HIGHWAY DIVISION

SCOPING WORKBOOK Form 1.3 Work Hour Estimate

City/Town				Contract No.:				
Location:				Assignment No.:				
Revisions Effective				ProjInfo No.:				
<b>SECTION 900</b>								
<b>CONSTRUCTION ENGINEERING</b>								
		PIC	PM	SE	Eng	AE	ET	TOTAL
901	Pre-Bid Services							
902	Pre-Construction Conference							
903	Highway Shop Drawings and Signal Permit							
904	Bridge and Wall Shop Drawings							
905	Bridge Construction Procedures							
906	Furnishing Advice and Field Visits							
907	Geotechnical Construction Evaluation							
908	Bridge Rating and Photographs							
		SUBTOTAL						

MassDOT - HIGHWAY DIVISION

SCOPING WORKBOOK Form 1.4 Summary Table

City/Town	0	Contract No.:				0			
Location:	0	Assignment No.:				0			
	0	ProjInfo No.:				0			
Effective Date	November 2013								
HOURLY RATE SUMMARY									
			PIC	PM	SE	Eng	AE	ET	
DIRECT HOURLY RATE (\$)	(Design)		\$51.00	\$51.00	\$46.75	\$37.18	\$35.66	\$27.04	
DIRECT HOURLY RATE (\$)	(Construction)		\$51.00	\$51.00	\$46.75	\$37.18	\$35.66	\$27.04	
HOURLY RATE (\$)	(Design)		\$145.40	\$145.40	\$133.28	\$106.00	\$101.66	\$77.09	
HOURLY RATE (\$)	(Construction)		\$145.40	\$145.40	\$133.28	\$106.00	\$101.66	\$77.09	
WORK HOUR AND FEE SUMMARY									
	TASK DESCRIPTION	PIC	PM	SE	Eng	AE	ET	Task Hour	Task Fee
100	PROJECT DEVELOPMENT ENGINEERING	0	0	0	0	0	0	0	\$ -
150	ENVIRONMENTAL	0	0	0	0	0	0	0	\$ -
200	FUNCTIONAL DESIGN REPORT	0	0	0	0	0	0	0	\$ -
220	DESIGN EXCEPTION REPORT	0	0	0	0	0	0	0	\$ -
230	INTERCHANGE JUSTIF./MODIF. REPORT	0	0	0	0	0	0	0	\$ -
300	25% HIGHWAY DESIGN SUBMISSION	0	0	0	0	0	0	0	\$ -
350	DESIGN PUBLIC HEARING	0	0	0	0	0	0	0	\$ -
400	75% HIGHWAY DESIGN SUBMISSION	0	0	0	0	0	0	0	\$ -
450	100% HIGHWAY DESIGN SUBMISSION	0	0	0	0	0	0	0	\$ -
500	RIGHT OF WAY	0	0	0	0	0	0	0	\$ -
600	GEOTECHNICAL DESIGN	0	0	0	0	0	0	0	\$ -
700	PROJECT DEVELOPMENT - STRUCTURAL	0	0	0	0	0	0	0	\$ -
710	SKETCH PLANS	0	0	0	0	0	0	0	\$ -
750	FINAL BRIDGE DESIGN	0	0	0	0	0	0	0	\$ -
800	PS&E SUBMISSION	0	0	0	0	0	0	0	\$ -
900	CONSTRUCTION ENGINEERING	0	0	0	0	0	0	0	\$ -
TOTAL WORK-HOURS		0	0	0	0	0	0	0	
								TOTAL FEE	\$ -
ACTUAL PERCENTAGES		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
(TYPICAL PERCENTAGES)		1-3%	10-15%	15-25%	25-35%	10-15%	10-15%		
				DESIGN		CONSTRUCTION		TOTALS	
(a) Salary Costs				\$	-	\$	-		\$ -
(b) Indirect Costs (%)	155.00%			\$	-	\$	-		\$ -
(c) Net Fee (%)	11.80%			\$	-	\$	-		\$ -
TOTAL LIMITING FEE				\$	-	\$	-		\$ -
(d) Direct Expenses				\$	-	\$	-		\$ -
MAXIMUM PAYMENT AMOUNT				\$	-	\$	-		\$ -
MAXIMUM OBLIGATION									\$ -
							SAY		\$ -



# MassDOT - HIGHWAY DIVISION

## SCOPING WORKBOOK

Contract No #		EXHIBIT B BUDGET - COST PLUS		
0				
		PRELIMINARY ENGINEERING	CONSTRUCTION ENGINEERING	TOTALS
(a) Salary Costs		\$0.00	\$0.00	\$0.00
(b) Indirect Costs	155.00%	\$0.00	\$0.00	\$0.00
(c) Net Fee	11.80%	\$0.00	\$0.00	\$0.00
TOTAL LIMITING FEE		\$0.00	\$0.00	\$0.00
(d) Direct Costs		\$0.00	\$0.00	\$0.00
MAX PAYMENT AMOUNT		\$0.00	\$0.00	\$0.00
MAXIMUM OBLIGATION				\$0.00

# MassDOT - HIGHWAY DIVISION

## SCOPING WORKBOOK

Contract No #		<b>EXHIBIT B</b> <b>BUDGET - LUMP SUM</b>		
0				
		PRELIMINARY ENGINEERING	CONSTRUCTION ENGINEERING	TOTALS
(a) Salary Costs			\$0.00	\$0.00
(b) Indirect Costs	155.00%		\$0.00	\$0.00
(c) Net Fee	11.80%		\$0.00	\$0.00
TOTAL LIMITING FEE		\$0.00	\$0.00	\$0.00
(d) Direct Costs		\$0.00	\$0.00	\$0.00
MAX PAYMENT AMOUNT		\$0.00	\$0.00	\$0.00
MAXIMUM OBLIGATION				\$0.00